E. H. B. Please see pages 125 & 126
PARKE, DAVIS & CO.
1 GAL 130
MAY 8 1888

HEALTH

A WEEKLY JOURNAL OF

DOMESTIC AND SANITARY SCIENCE.

"Reason's whole pleasures—all the joys of sense—
Lie in three words, HEALTH, PEACE, and COMPETENCE."—Pope.

EDITED BY DR. ANDREW WILSON, F.R.S.E. &c.

VOL. V.—No. 111.] FRIDAY, MAY 22, 1885. [PRICE TWOPENCE.
Registered at G.P.O. as a Newspaper.

MEMORY AND SUCCESS.

WHAT IS IT THAT contributes greatly to success?
A good memory.
WHAT IS IT THAT always causes failure in life?
A bad memory.
WHAT IS IT THAT is indispensable to every Student, Speaker, Professional, and Business Man?
A good memory.
WHAT IS IT THAT every one can obtain from PROFESSOR LOISETTE? A good memory—the Physiological Art of Never Forgetting—wholly unlike Mnemonics. Any book whatever mastered in one reading.

Prospectuses post-free, giving opinions of Mr. RICHARD A. PROCTOR, Dr. ANDREW WILSON, CHARLES MERCIER, M.B. (Lond.), F.R.C.S., &c., and others who have studied the system. Great inducements to Correspondence Classes in all parts of the world. Day and Evening Classes in "Never Forgetting" and for Cure of "Mind-Wandering."

PROFESSOR LOISETTE, 37, NEW OXFORD STREET, LONDON.

Special to Invalids.

POWNCEBY'S WINES, OLD BRANDIES, and THOROUGHLY MATURED WHISKIES
ARE ABSOLUTELY PURE,
As certified by the highest medical authorities. Small quantities at wholesale prices (to value of £2 cash). Delivery free within 100 miles.

TRADE MARK
ALTA PETO

POWNCEBY & CO.,
OXFORD ST. and STRAND, LONDON.

SHARP & CO.'S
"EXOSMOTIC" DISINFECTOR.
5s. EACH.
One PLACED in CLOSET-CISTERN or in Drain FLUSHING-TANK, will EFFECTUALLY PREVENT ALL NOISOME EFFLUVIA and ZYMOTIC DISEASE.
(In Ordering, kindly state size of Cistern.)
11, HOLBORN CIRCUS, LONDON, E.C.

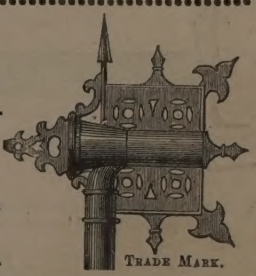
For Blanc-Mange, Puddings, Custards, Children's and Invalids' Diet,
And all the Uses of Arrowroot,
BROWN & POLSON'S CORN FLOUR
(THE FIRST MANUFACTURED IN GREAT BRITAIN)
Has a World-Wide Reputation,
And is distinguished for Uniformly Superior Quality.

International Health Exhibition, South Kensington, 1884.

No. 1. HOUSE TRAP.

AWARDS.
Banner Ventilators and System of Drain and Sewer Ventilation,
THE GOLD MEDAL.
Banner Soil Pipe Traps and Man Hole Covers, &c.,
THREE SILVER MEDALS AND ONE BRONZE MEDAL
For further particulars of the Banner Appliances, address

BANNER, BROTHERS, & CO.
Consulting Sanitary and Ventilating Engineers.
11, BILLITER SQUARE, LONDON, E.C.


TRADE MARK.

"SUJI MUJI" POWDER.

TESTIMONIALS.

TRADE MARK.

REGISTERED.

Full Particulars on Application to the Sole Manufacturers and Inventors, LIGHT & CO., CALCUTTA WORKS, LONDON, N. AND AT 31, STRAND ST., LIVERPOOL.

13, Comeragh-road, West Kensington, S.W., Aug. 13, 1884.

Mrs. Ford North has not any objection to her letter being used as a testimonial, for she considers SUJI MUJI a most excellent Cleansing Powder, and especially for nursery sponges, which, after being soaked in it for a few hours, become exactly like new.

Hamlet of Ratcliff Schools, Stepney, E., Dec. 1, 1884.

Gentlemen,—I have great pleasure in bearing testimony to the wonderful efficacy of your "SUJI MUJI"; our large schoolroom used to take two of us the entire day, with 60 buckets of water, and then not look clean; now, with a little of your powder and half-a-dozen buckets of water and a mop, the room is done in four hours by one person, no heavy labour, no scrubbing brush, and in less than half-an-hour the boards are dry. I must not forget to add that, since using the powder, there is an entire absence of smell in the Infant School, and no sign of fleas anywhere.—Yours respectfully, J. WATLING, Caretaker.

Transport S.S. "Hankow," Victoria Dock, July 1st, 1884.

Your SUJI MUJI is the best thing out for scrubbing, whitening, and purifying the cabins, &c.; shall want some more before starting. J. LAMBERT, Purser.

"HEALTH," April 17, 1885.—I have found a weak solution of this powder invaluable in cleaning the hands from oil and grease, such as one is apt to encounter in the work of cleaning a tricycle or other machine. Used in stronger solution, it can be applied with advantage to cleanse and purify linen, and, employed as a paste, it will remove paint from woodwork. In the washing of closet-pans this powder is invaluable, and I should like to see it in common use for this purpose, inasmuch as the foul odour of many such receptacles arises from the accumulation of sewage matter in the basins and containers. For the necessary cleansing of cattle-trucks, and other vehicles which have to be periodically washed, this powder should prove a great boon. I am not surprised to hear that it is in constant use on board many of the steamers and ships belonging to the principal lines. No soap or other addition is required, the powder being in itself thoroughly detergent.

Compton Works, Canonbury-road, N., August 15th, 1884.

Gentlemen,—I have much pleasure in bearing testimony to the efficiency of your SUJI MUJI for cleansing. We first used it in cleaning a house, left in a very filthy state—grease, tallow, and dirt on mantel-shelves, floors, and stairs. We were surprised at the ease with which it was removed: one half-penny worth to a pail of water, we found sufficient; it seemed to dissolve the greasy dirt almost immediately. I have no hesitation in saying that it is half the cost and half the labour of ordinary soap and soda, and far more efficacious.—Faithfully yours, R. GROCOTT.

To Messrs. Light & Co. October 24th, 1884.

Messrs. Light & Co.—I have tried the SUJI MUJI, and my people tell me it answers admirably.—Yours truly, ALFRED BEST.

Queen's Hotel, St. Martin's-le-Grand.

Packed in 7, 14, 28 lb. Tins; ¼ cwt. and 1 cwt. Barrels, 30s. per cwt., forwarded to any part of the United Kingdom, Carriage paid on receipt of cash with order or reference. All cheques made payable to Light & Co., London and County Bank. 2s. 6d. sample tin, forwarded carriage paid.

"HAMAMELIS" TOILET SOAP

By Her MAJESTY'S Royal Letters Patent. 1884.

The finest, best, and most delicious toilet soap in the world for the skin, guaranteed absolutely pure, each tablet contains a large proportion of the distilled extract of that wonderful plant, the "Hamamelis Virginica."—See the *Lancet*, *British Medical Journal*, *U. S. Dispensatory*, and other medical evidence on the value of "Hamamelis."

Dr. PROCTER, of India, writes:—"It possesses the valuable properties of Hazeline, the distilled active principles of the Hamamelis Virginica. Owing to the chemical qualities of Hazeline, this soap is manufactured with less Alkali than any other of similar quality, and is, therefore, the most valuable soap for the nursery. It possesses the most marked cooling and astringent properties, and thus softens and beautifies the complexion by acting on the pores of the skin, preventing the occurrence of redness or blotches and the formation of pimples, by freeing the sweat glands."

Dr. THOMAS SIMPSON, Glasgow, writes:—"I have used the soap you sent me and can give it unqualified praise. Hamamelis Virginica has been used in Homœopathic practice for twenty years, so that it is not an untried remedy, having proved of incalculable value in many disorders of the skin, especially in varicose states, &c. &c., and you have met a long-felt want in bringing it more prominently into public notice."

"The Hamamelis Toilet Soap has, in addition to its invaluable healing qualities, a delicious fragrance quite unique, and when once used will be found absolutely indispensable to the toilet."—*Court Journal.*

"There is no more delightful Toilet Soap in existence, and Hamamelis only needs to be used once to find a permanent home in every house."—*Court Circular.*

Numerous other Medical Authorities (too numerous to mention) unite in commending Hamamelis for the Skin.

OF ALL CHEMISTS. Price per Box of Three Tablets, Plain, 1s. 6d.; Wrapped and Highly Perfumed, 2s. 6d.

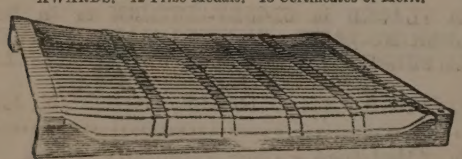
Sole Proprietors and Makers—JAS. ALEXANDER & CO.,

PURE TOILET SOAP WORKS, LAMBETH, S.E.

PATRONISED BY ROYALTY, THE NOBILITY, AND THE MEDICAL PROFESSION.

THE "EXCELSIOR" PATENT SPRING MATTRESS.

AWARDS.—12 Prize Medals. 18 Certificates of Merit.

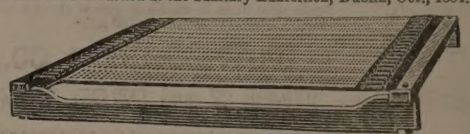


Mattress on Polished Pitch-Pine Frame. Made any size to fit Wood, Brass, or Iron Bedsteads.

The principle of arrangement permits the free movement of one sleeper without inconvenience to the other, admits of complete isolation of each, and *effectually prevents depression in the centre.*

THE NEW PATENT WOVEN WIRE MATTRESS.

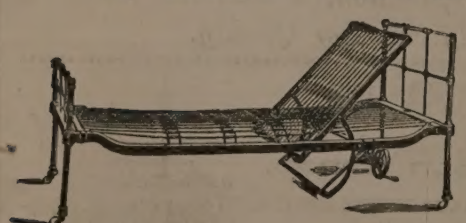
Prize Medal awarded at the Sanitary Exhibition, Dublin, Oct., 1884.



This mattress is an entire novelty in its conception and arrangement, and unquestionably embraces advantages possessed by no other elastic web or woven wire mattress. Its leading peculiarity is the unique combination of a woven wire central portion with helical springs of great strength and reliable temper. The addition of suitable helical springs to a woven wire mattress *removes* the great objections made to this kind of mattress; viz., that two sleepers are liable to be thrown or moved into the centre of the bed, and that the mattress depresses or becomes hollow from constant use.

The "EXCELSIOR" HOSPITAL BEDS. The "MATLOCK" BED REST. The "MATLOCK" INVALID COUCH.

THE "EXCELSIOR" INVALID BED.



With Patent Appliance for raising an Invalid to any angle, easily, painlessly, and immediately, by one person.

RETAIL FROM CABINETMAKERS, UPHOLSTERERS, FURNISHING IRONMONGERS.

THE "EXCELSIOR" INVALID COUCH.

Reducible from 6 ft. 9 in. to 4 ft. 3 in. Also made in one length not reducible.

Illustrated Descriptive Circulars and Price Lists from

CHORLTON & DUGDALE, MANCHESTER.

HEALTH

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, MAY* 22, 1885.

CONTENTS OF No. 111.

	PAGE
Notes by the Way	113
Original Essays:—	
Nature's Modes of Cure. By Dr. Andrew Wilson	114
Ladies' Dress for Tricycling. I. By Ada S. Ballin	116
Personal Health:—	
Food and its Relation to Medicine. II. By W. M. Hepburn, M.D.	118
Healthy Houses:—	
The Law of Landlord and Tenant. III. By H. T. Munday	119
Public Health:—	
Our Ambulance Lectures. VIII. By Dr. Andrew Wilson	120
Jottings from the Journals	121
Our Bookshelf:—	
The Pedigree of Disease	122
Sanitary Appliances	124
Our Letter-Box:—	
Carpet-beating	124
Removal of House Refuse	124
Queries and Answers:—General, Sanitary, and Medical	124

Notes by the Way

BY THE EDITOR.

"Health is the foundation of all our physical happiness."—*Herder.*

I HAVE lately been dipping into the subject of the examination of children and others in popular science. As the result of my search, I have disinterred a goodly number of extraordinary replies, containing, it need hardly be added, a number of facts utterly new to science at large. The answers given occasionally to questions in physiology are perhaps those which exhibit the richest vein of humour. In my own experience, I have had a student telling me, in a written paper, that the *humerus* (or upper arm-bone) was known as the "humorous," and that it was also called "the funny bone!" The ordinary classic name of the bone had evidently inspired a too obvious meaning in the mind of the student, who associated, as I afterwards found, the tingling sensation when the elbow (or "funny-bone" of popular life) is struck, with the anatomical term.

MORE extraordinary still was a reply I once met with in an examination-paper. I had asked the question, "What is the sweetbread, and what are its functions?" To this I received answer that the sweetbread was otherwise known as the "pancras" (it should have been "pancreas," of course); and, added the student, "the organ is so named from the Midland Railway Station in London!" Evidently the chance association in his mind of "pancras" and "pancreas" had proved too much for the intelligence of the student to unravel.

THE following examples, recently published, are worth preservation in the category of replies, which includes the famous answer—given in reply to the question, "What is bile, and what are its uses?"—that "bile is formed in the stomach, and is used for cleaning carpets." Question: "Describe the process of digestion." Scholar's reply thereto:—"Food is digested by the action of the lungs; digestion is brought on by the lungs having something the matter with them. The food then passes through your windpipe to the pores, and thus passes off you by evaporation, through a lot of little holes in your skin called capillaries. The food is nourished in the stomach. If you were to eat anything hard you would not be able to digest it, and the consequence would be you would have indigestion. The gall-bladder throws off juice from the food which passes through it. We call the kidneys the bread-basket because it is where all the bread goes to. They lay up concealed by the heart."

A QUESTION, "Why do we cook our food?" was thus answered:—"Their of five ways of cooking potatoes. We should die if we eat our food roar." Another girl wrote: "The function of food is to do its proper work in the body. Its proper work is to well masticate the food, and it goes through without dropping, instead of being pushed down by the skin." A third pupil put in her paper that "food digested is when we put it into our mouths, our teeth chews it, and our tongue rolls it down into our body. We should not each so much bone-making foods as flesh-forming and warmth-giving foods, for if we did, we should have too many bones, and that would make us look funny."

THE account continues:—On the subject of ventilation, one student informs us that a room should be kept at ninety in the winter by a fire, and in the summer by a thermometer, while a classmate writes, "a thermometer is an instrument used to let out the heat when it is going to be cold." Another girl sets down: "When roasting a piece of beef, place it in front of a brisk fire, so as to congratulate the outside." But an answer perhaps best illustrating the jargon that comes of the cram system is the following: "Sugar is an amyloid; if you was to eat much sugar and nothing else, you would not live, because sugar has not got no carbon, hydrogen, oxygen, nitrogen. Potatoes is another amyloids."

Now, I have not quoted these examples of the humorous in examination-replies in health and physiological science merely for the purpose of adding to the list of published witticisms. My aim is rather to show that such answers really reflect quite as much upon the teaching to which these children were subjected as upon their knowledge of the science of life and health. I spend a large part of my life in teaching and examining duties, and, I may say, I have had any deficiencies in my teaching most clearly demonstrated by the answers of students. The students' replies are, in fact, the best guides to the success with which the teacher's views have been appreciated.

As regards the replies above quoted, one can gauge pretty accurately the kind of instruction on which the answers were founded. The school-teacher, burdened with other work, has often to acquire his or her knowledge of physiology from a text-book, without instruction or systematic demonstration at the hands of a scientist. So it happens that children are dosed with mentally indigestible matter about "amyloids," or starchy foods, thermometers, capillaries, the gall, bladder, pores, and so forth. We cannot avoid demanding that our children should be taught health-science at school. Such information is of priceless value. But better far have no science at all than that which is merely "cram," and which is only stuffed into the child's mind, to be ladled out again in the same crude state for purposes of examination. It is clear we cannot ask the teacher to be an adept in everything, and I see nothing for it, if science is to progress in schools, than that we should (as at Leeds, Birmingham, and elsewhere) have science-teachers, specially trained in their work, and commissioned by School Boards, to go from school to school diffusing true "sweetness and light" in the shape of sound information, well illustrated, and aptly conveyed.

Under the title of "Soap in Blood," an interesting note has recently been published, recording the investigations of a German chemist into the presence of a soda soap in the vital fluid. He finds such a compound to exist in the liquid of blood and chyle—this latter being the fluid which represents the products of digestion. In the serum or blood fluid of the ox, horse, and dog, from 0.05 to 0·12 per cent. of the fatty acids of soap is contained. In human chyle, 0·23 per cent. of soap has been found. No explanation of the origin of these soaps is as yet forthcoming.

✣ ✣ ✣

Among the "ways that are peculiar and tricks that are vain," I think I may include a development of journalistic "enterprise" which has recently come under my personal observation. The editor of a semi-religious periodical (which, for obvious reasons, I decline to advertise gratis) sends me a copy of his publication, and accompanies the gift by a printed circular, which bears that the said Editor will be "grateful" for the insertion of the matter of the circular in Health. I have always imagined that when a book or periodical is sent me for review, I was not only at liberty, but was thereby asked, to express my own opinion of its merits.

✣ ✣ ✣

When, therefore, I find that the editor who sends me his paper likewise apes the *rôle* of his own critic and reviewer, I feel called upon to remind him that it is just possible for an individual to possess a conceit for himself and his works which is too "good" or too high for the endorsation of ordinary mortals. Anything more fulsome than the self-praise bestowed on the journal in question it has rarely been my lot to read. I may add that I fail to discover in the pages of the journal itself any warrant for agreeing with the self-laudation of its editor's circular. Into my waste-paper basket, therefore, go periodical and circular alike, unless, indeed, on second thoughts, I may preserve both as an illustration of the marvellous development of self-importance to which, in these latter days, certain units of the journalistic profession may attain.

✣ ✣ ✣

I have received a memorandum of an interesting aid to the prevention of infectious diseases, in the shape of an announcement by Mr. W. G. Lacy, of 24, Ringford-road, Wandsworth, London, S.W., who is prepared to carry out the disinfection of rooms and the purification of clothes and bedding by steam, on approved principles. I observe that Mr. Lacy is prepared to use corrosive sublimate as a disinfecting medium; this salt of mercury, according to Dr. Koch, possessing the greatest power of any agent of destroying disease-germs. The objection to the employment of this substance by unskilled persons is founded on its poisonous nature; but in the hands of experts its use should form a secure protection against the risks of infection. Wherever there exists necessity for disinfection after disease, I should recommend Mr. Lacy's services being called into requisition. Thorough disinfection is the great safeguard of life and the saving of much money and loss of time. It should be added that, where cases of infectious disease require to be removed, Mr. Lacy employs a private brougham, and thus secures the comfortable conveyance, to hospitals or elsewhere, of such persons, without publicity or unnecessary exposure or trouble.

✣ ✣ ✣

Friends of the late Peter Squire will be interested to know that the unveiling of a medallion portrait of him took place at the Pharmaceutical Society's House, 17, Bloomsbury-square, W.C., on Wednesday, May 20, at 4 p.m., by Sir Spencer Wells, Bart.

Original Essays

"Life is not to live, but to be well."—*Martial.*

NATURE'S MODES OF CURE.

By Dr. Andrew Wilson.

The natural relief of many conditions which are apt of themselves to prove dangerous or even fatal to life having been illustrated in last week's Health, we may now proceed to note the probable origin and meaning of the natural cure of ailments—that is, of the curious "healing power of nature," to which allusion has been made. In the case of the heart, as shown in our last article, there exists a regulating mechanism, which seems as if it were intended to forestall the occurrence of strain and accident in the central organ of the circulation. The overcharged, overdistended, and overstrained heart is enabled, through its nervous mechanism, to apply for and obtain relief. It is an extension of this same tendency in living beings which apparently gives us the natural cure of disease. The severe headache, which is relieved by a copious bleeding from the nose, or the bilious attack which culminates either in sickness or diarrhœa, and is thereby speedily cured, illustrate other ways and means of natural cure; just as the healing of the scratch on the finger, by the development of new cells and new tissues, exemplifies this cure in another phase.

Recognising this principle in nature and life, we are forced onwards to inquire into its origin, cause, and conditions. What is this natural power of healing? How has it arisen in living beings? What are its limits of operation? are all so many questions which crop up in the course of our reflections. Dr. Mitchell Bruce, in the suggestive essay to which we have before alluded, attempts to frame replies to these questions, and, on the whole, succeeds in making out a highly plausible case for our consideration. It is pointed out that of old physicians regarded "the healing power of nature" as a something implanted in the body, as was the principle of a tendency to disease. A power of disease and a power of healing were thus regarded as existent in the body, and as opposing one another. In olden times, these tendencies were even personified under the names of "demons" or "familiars," the *archæus* or *anima* being the healing and favouring spirit.

Succeeding these primitive notions of things, we find the scientific explanation ousting the "demons" of old from their place in human beliefs. If it be true, as admitted, that we are the creatures of progression, we can frame a theory of the healing power of nature, on the foundation supplied by the natural forces and powers of the frame.

It is clear that life may in one sense be viewed as an adjustment of the living being to its surroundings. This much is true, whatever theory of nature we may hold. We are perpetually "adapting" ourselves, and necessarily our organs and parts, also, to the conditions of our lives. This is the first great principle of vital action. Then succeeds a second principle or tendency. In the "struggle for existence" which thus ensues, some favoured organs or parts come to the front, while others tend to disappear under the law of "disuse." Between these two forces or tendencies, Dr. Bruce would have us see the living being is swayed. Nor is this all. The power of adapting our bodies to varying conditions seems to carry with it, and to include, an overplus of power. For example, the stomach, as Dr. Bruce points out, does not merely digest the special nitrogenous foods acted on by the gastric juice, but is able to assimilate foods of varying quantity and quality so as

to meet wide extremes of digestive needs. So also, in the case of the heart and blood-vessels, we see a power of compensation, and of provision for both increase and variety of work. The pulse can rise or fall as circumstances require, and is thus adapted to meet the exigencies of any strain or other condition which may be brought to bear upon the centres.

Tracing back the "healing power of nature" as to its origin, then, we may see clearly enough, in theory, that it represents simply the excess or overplus of vital strength and energy, which has been collected and intensified in the best of the race, and in the best of our organs, which have survived. The exercise of life's duties in a healthy fashion has resulted in this view of things, in the accumulation of a certain deposit-receipt at the bank of bodily power. "It is in this way," says Dr. Bruce, "that we find that our organs are all of them larger than is ordinarily necessary; that we all possess more lung-tissue, more heat, more peptic (or stomach) glands than we generally have occasion to require; that our organs are, in other words, endowed with a certain amount of reserve force, and are furnished with the mechanisms of regulation and relief, which we have just examined, as in the circulation and the body-heat."

With this simple idea of the origin of the powers we possess to resist disease, strain, and injury, we find another topic closely interwoven—that of the nature and causes of the diseases themselves. As the old idea of "demons" possessing the body has waned and died away, so the thought of disease as a kind of distinct entity or force possessing the body for a time to its ailment or destruction, has likewise been relegated to the dreams and myths of the past. The causes of disease are to be found, largely, if not completely, in perversions or extremes of the natural forces by which we are surrounded. Extremes of heat and of cold, the growth and propagation within our frames of lower forms of animal and plant life, altered blood-pressure in organs (such as the lungs), due to the varying influences of weather, &c.—these, and many other examples, illustrate the origin of disease, through modifications of natural conditions. Even the propagated troubles which we may inherit from our ancestors represent the fruits of similar weaknesses, descending from one generation to another by methods and means of propagation of the most natural kind.

The variations in the means at the body's disposal in bringing about "natural cures" are very considerable. Dr. Bruce enumerates the more generally recognised among such means. Thus there is the process of "throwing off" disease, which is probably best explained scientifically, as the result of the body's increased work and of the display of the "reserve force" of the frame, demanded and drawn out by the exigencies of disease. The healthy body, in truth, is a soil which is perpetually rejecting the disease matter which it inhales into its lungs, ingests with its food, or otherwise receives within its structure.

But there also exists in *rest* a powerful means of natural cure, and one which has always been widely recognised from the earliest days of physic. Here, again, we are strictly within the limits of "natural cure," for the life of every animal is spent in alternations of work and rest. The heart itself does not perform a ceaseless round of duty. It really rests as much as it works. It has short rests in the intervals or pauses between its short spells of work. Breathing, in the same way, is not a continuous work, but a bodily labour which, as we can readily see, shows rests and pauses between the acts of the work.

We find, accordingly, that nature, in her modes of cure, has but to increase and intensify this principle of natural rest, to secure for the affected organ or part the opportunity to regain lost force or power, and to make headway against the tide of disease. When the physician prescribes rest, or endeavours to relieve affected lungs of so much of their work by stimulating skin and kidneys to increased activity, he is only availing himself of the principle of natural repose. In a highly ingenious manner has nature provided for the rest of the heart by making the arteries (or vessels carrying pure blood to the body from the heart) highly elastic tubes. The elastic character of these blood-vessels maintains and carries on the impulse of circulation which the heart begins, so to speak, with each stroke. The artery takes up the work which the heart inaugurates. The heart does the first four-tenths of the cycle of circulation, the remaining six-tenths—during which the heart rests—are performed by the arteries. Increase this tendency to rest, or modify it in one way or another, and you at once procure or evolve a powerful means of combating the strain of extra work or the inroads and demands of disease.

So is it also with breathing. The economy of nature is here illustrated, in equally clear fashion to that exhibited by the heart. It is "breathing in," or *inspiration*, which gives us all the trouble, and which costs us a high muscular effort. "Breathing out," or *expiration*, which is merely the recoil of the elasticity of the chest, and the return of the chest to its position of rest, costs us no effort. Power is thus economised, and labour saved in the discharge of life's duties; while the principle of rest comes to the front, when required, as a relief for pain and from the pangs of disease.

Again, Nature's cures, as we have already hinted, are often direct, and appear to antagonise the causes of disease by attacking, through the mechanisms of relief which the body contains, the actual source of ailment. Spontaneous bleeding, vomiting, diarrhœa, are examples of such actions. There are also illustrations well known to physicians, of so-called *vicarious means* of relief, where strain in an organ or part is relieved through the action of another organ. Here it would seem as if, helpless to aid itself, the affected part appealed with success to the bodily community at large, and received the aid in need of which it stood.

Limits to natural cure, and failures of nature to accomplish such cures, are, of course, frequent. It could not be otherwise in the case of the living body struggling to maintain its footing amid the diverse circumstances which make up the world of life. Thus, the heat or cold to be resisted may prove too great for the body's powers of resistance. The body's strength may be exhausted in the struggle against disease. The demand or strain may be too sudden in its character. Want of the power to adapt itself or some of its organs to new circumstances may again operate to produce failure of life's work of cure. It is here that we see the distaste for and inability to bear the action of

Galvanism *v.* Nervous Exhaustion.—Pulvermacher's world-famed Galvanic Belts for the cure of nervous diseases have received testimonials from three Physicians to her Majesty the Queen, and many eminent members of the Royal College of Physicians, London. Mr. J. Collins, of 7, Musley-lane, Ware, Herts, writes as follows:—"May 5, 1885. Dear Sir,—I have great pleasure in adding my testimony to the excellence of your Galvanic Belt for my complaint, Indigestion. It has indeed worked wonders in me, and I have only had it a few months. Your Belt has restored life and vigour to my system, and has made life a pleasure to me. If you hear from any one from this part of the country refer them to me, and I hope to forward you an order for another Belt in a week or two for a friend."—Pulvermacher's "Treatise on Nervous Exhaustion, Physical Debility, and Loss of Vital Energy," with testimonials received from medical men and private patients all over the country, sent post free on application to J. L. Pulvermacher's Galvanic Establishment, 194, Regent-street, London, W.

tobacco and other drugs in some individuals, notwithstanding persistent efforts to accustom the body to their use. Nature fails to produce the accommodation; and the *habit*, which might prove useful as a means of cure under certain circumstances, never becomes established. So, also, while in most cases one attack of a fever protects the body against subsequent attacks, there are cases in which an utter want of this "fever habit" is seen, and in which the individuals are attacked by every epidemic of the disease which appears.

Last of all, as Dr. Bruce points out, there are certain *vicious circles* of action which may defeat nature's cures. Liver disorder produces nervous languor, and this, in its turn, increases the biliousness. Poverty of blood causes indigestion and constipation, which, in their turn, further and viciously affect the vital fluid. Here, again, we are only witnessing the operation of natural law. One organ or part of a tissue has become dependent on others. A circle is formed, and the diseased action beginning at any point in that cycle traverses the whole.

Failures and want of power of accommodation, notwithstanding, it can still be shown that these bodies of ours possess a wondrous power of natural cure, the result of an equally wondrous evolution of vital power, operating through the long ages of the past.

LADIES' DRESS FOR TRICYCLING.

By Ada S. Ballin.

FIRST PAPER.

The great value of the tricycle as an aid to the preservation of health has been so well brought out by various papers published in Health that I need dwell no further upon this part of the theme. Tricycling has become quite fashionable for men, and there is every reason to hope and believe that it will soon become so for women, for whom it is a particularly suitable means of exercise, if only a sufficient number of ladies living in towns will cast off the fear of being stared at, and bravely mount the iron steed in public. Ladies in the country already largely patronise the tricycle. The ladies of the Royal Family have set a good example to the women of England in this matter. The Princess Mary, Duchess of Teck, took the initiative; then the Queen presented two machines to her young grand-daughters, the Princesses of Hesse; the Princess of Wales next gave her eldest daughter one for a birthday present; and the Princess Louise rides one herself. I believe that in Manchester it is quite the usual thing for a lady to do her marketing on a tricycle, or to use one when making a round of visits, and I cannot see why the same thing, but for the greater traffic, should not be done in London and other great towns.

Besides the healthfulness of the exercise, women of business would find a great deal of time saved in travelling distances which in London are so great, and which a tricycle can cover much more pleasantly than an omnibus or the underground railway, which last can certainly not be recommended for its health-giving qualities. Moreover, one has very often to go to places not reachable by the routes of the public conveyances.

To ladies who are not accustomed to go out alone, the Sociable should prove a great boon. I have often seen husbands and wives bowling along on these double machines, and noticed how happy and comfortable they looked. The same sort of machine would be delightful for two ladies, and has this advantage over the single tricycle, that the riders can work it alternately, so that neither need become overtired, even on a long journey.

The other day I saw a tricycle made to work, not with the legs, but with the arms. It occurred to me that great advantage might accrue from machines being made to work either with the legs or arms, so that when the legs become fatigued, the arms, and with them the muscles of the chest, might be exercised—an end devoutly to be wished.

Tricycles are suitable for people in all stations of society. For those whom business takes very much into the streets they are desirable as a means of saving both labour and time, and for those whose occupations are sedentary they are a means of obtaining healthy exercise and fresh air.

On the *dress* of ladies the tricycle is likely also to have a salutary effect, for to ride it comfortably the dress must be light and easy in every part. Heavy skirts hanging from the waist would inevitably produce backache, and tight stays would be too painful to be borne.

Neat, dark cloth costumes, ulsters or jackets, with small felt or cloth hats to match, are suitable for tricycle wear, or dresses of those brownish materials which do not show the dust of the road. Until tricycle riding has become more common for ladies in great towns, they would hardly care to go about in such bright and attractive costumes as one uses for carriage wear, as by so doing they would obtain more notice from passers-by than would be altogether agreeable. It is, however, not at all necessary to go to the expense of having special dresses for tricycling, though, of course, these may be had if one likes.

Fig. 1.

In the Dress Department of the International Health Exhibition of last year were several dresses adapted for tricycle wear. Of special dresses which would be exceedingly comfortable and suitable I noticed one or two, but these could hardly be worn in towns unless the wearers were hardened to a considerable amount of staring and of comment from the younger and dirtier portion of the community as they passed along the streets. One of these dresses was exhibited by Mrs. H. Fleming Baxter, and is intended for the Highlands, or for mountaineering purposes. It is made of a dark blue cloth, with gaiters, knickerbockers, a skirt reaching to the knees, and a very pretty short coat like a gentleman's shooting-jacket; the hat is made to match. This is a fair type of the kind of dress to which I am now referring, and of which other specimens were exhibited differing in unimportant detail.

This sort of dress saves the wearer from the friction and weight of long skirts, which form an impediment, and are

To Inventors.—Inventions protected by Royal Letters Patent at lowest rates. Provisional protection for nine months, £2. For all information concerning Patents address Messrs. Lulman & Co. Patent Agents, 8, Essex-street, Strand, London, W.C.—[Advt.]

the means of wasting a considerable amount of energy, whether in walking or propelling a machine.

Thus, from a health point of view, these dresses are excellent. They are, moreover, extremely *chic*; but, unfortunately, they are attended with that great disadvantage inherent in all dresses of the kind—that those ladies who first were brave enough to attire themselves in this way would be called, not *brave*, but *bold*. The same objection applies to the costume made by Mrs. Louisa Beck; but, in this case it can easily be removed, as I shall presently suggest. Mrs. Beck calls this very effective costume her "trouser dress." In the materials of which the one exhibited at the Healtheries was made it would be very suitable for summer wear. It is extremely light, weighing altogether only 3 lb. 2 oz. It consists of the cut-away coat, fastening at the throat, according to the present fashion; the waistcoat and collar are of ruby-coloured velvet, and a large bunch of ribbon-velvet bows make a very pretty finish at the throat. The skirt falls in loose, double box-pleats, more than half-way down the calf, and below it the trouser-legs show for three or four inches. The coat, skirt, and trousers were made of pale grey beige. The objection to this dress could be entirely done away with, by making the skirt an ordinary dress length, so as to hide the trousers.

This would make a very pretty dress for visiting. A costume of something the same description, though not so ornamental, is worn by the members of the Ladies' Cycling Tourist Club. It is made of grey tweed, and consists of a Norfolk jacket, a long skirt covering knickerbockers, and a hat to match. This costume is made by Mr. T. W. Goodman, of 47, Albermarle-street, W., who is the tailor to the club. Mr. Goodman has invented and registered the Ladies' Cycling and Walking Costume Combined, which is altogether the best dress for the purpose that I have ever seen. It does not differ in appearance from an ordinary walking dress. This dress obtained two medals at the National Health Society's Exhibition the year before last, and was mentioned in HEALTH at that time. Last year it obtained a medal at the Healtheries. It is a dark blue cloth princess robe, with the ordinary drapery at the back and a scarf round the hips; at the left side of the skirt are some bows of ribbon, and these, when the wearer is walking, hide the secret of the dress. When she mounts her iron steed, all she has to do is to unfasten some buttons which are cunningly concealed beneath the bows, and at once she has a skirt perfectly adapted for tricycle-riding.

It is constructed on the same principle as the riding-habit now worn, with room for the raised knee, so that the skirt does not draw up with the movements necessary to propel the machine. The part which is buttoned over is cut with a deep curve, so that when buttoned, the bows, which are seen on the right side of the accompanying engraving, are in the centre of the skirt. The part that was folded over gives extra width to it, and the curve which is now in the middle accommodates the knee as it rises. This, I think, would be easier to make, and more convenient, than the modification of dress suggested by Mrs. Fenwick Miller. But her suggestion is highly practical and not at all difficult to carry out; it is that a kind of false flounce should be put "upon the front and side breadths of an ordinary walking-dress, so that it can be buttoned up when walking, and let down to conceal the feet when tricycling." Both in this modification and that invented by Mr. Goodman, I should think that small hooks and loops would be preferable to buttons in fastening, as they would show much less when undone. Mr. Goodman's dress may be made with a jacket-body. The accompanying cut, however (Fig. 1), does not at all do justice to the dress, for it represents it as made with a most unhygienically small waist, whereas all the dresses I have seen made in this way have been most healthy in all respects, and have had waists of the natural size.

(To be concluded.)

THE bicarbonate of soda is recommended by Dr. Rosseau as an external application in eczema. He uses it in the form of a pomade of the strength of fifteen grains of the soda to one-and-a-half drachms of lard or other base. He holds that it alters the unhealthy condition of the skin and restores it to the normal state.

FLOUR PASTE.—The following makes a splendid paste for all purposes, and keeps well:—Flour, four ounces; nitric acid, fort., forty drops; oil of cloves, five drops; carbolic acid, five drops; water, one pint; glycerine, three drachms. Mix flour and water in a mortar, then add nitric acid; apply heat until cooked, and add the remaining articles when nearly cold.

TOOTHACHE TINCTURE.—The following, although nothing new, has been found to be very successful; the spt. ammon. co. seems to remove the sensitiveness of the nerve after one or two applications:—Tincturæ opii, two ounces; tinct. pyrethri, two ounces; spt. ammon. co., three ounces; spt. camph., four ounces; chloroform meth., one ounce. Label, "Poison: To be applied on a little cotton wool to the cavity of the affected tooth."

TURTLE OIL.—Turtle oil is suggested as a substitute for cod-liver oil. The oil is of a yellowish colour, and at the ordinary temperatures in this country forms a thick, finely-granular fluid, in consistence something like olive oil partly congealed. A gentle heat renders this oil clear and transparent. It possesses little odour or taste, and does not quickly turn rancid. Taken in warm milk, it is not so objectionable as cod-liver oil. Mr. E. M. Holmes, in the *Pharmaceutical Journal*, says:—"Mr. J. H. Brooks informs me that the oil is obtained from the fat of the reptile by boiling, and not from the eggs. Concerning its use in medicine, Mr. Brooks adds, I have for some twenty years employed turtle oil with the most beneficial results in all cases where cod-liver oil was indicated, in persons in whom the nutritive process was defective, in children of strumous disposition, in the *sequelæ* of scarlet fever, in measles, and other acute specific diseases. It has proved of the greatest service in scrofulous affections of the eyes, nose, and other parts, and has been most beneficial in chronic bronchitis, gout, rheumatism, and syphilitic affections; but I have found it more particularly useful in phthisis pulmonalis, in all its stages. Turtle oil is borne well by the stomach, causing neither nausea, eructations, dyspepsia, nor diarrhœa. It should be administered in the same doses as cod-liver oil, commencing with a small dose three times a day in any vehicle that the patient may fancy. It is also largely used in the Mauritius and Réunion, where pulmonary diseases prevail, and is much preferred to cod-liver oil." This animal oil, which keeps well, and is comparatively free from smell, should prove, with its colour and non-drying properties, of great service in the manufacture of pomades, &c.

SCOTT'S MIDLOTHIAN OAT-FLOUR.—Messrs. A. & R. Scott, of Kingston, Glasgow, and Finsbury-square, London, have prepared a singularly pure and nutritious "Oat-flour," which bids fair to take high rank among the food products which are specially adapted for infants and invalids, and for the use of dyspeptics in particular, whose digestion is weak, and whose stomachs refuse to assimilate foods of ordinary kind.—ED. HEALTH.—[ADVT.]

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

FOOD AND ITS RELATION TO MEDICINE.

By W. M. Hepburn, M.D.

(*From the "New England Medical Monthly."*)

SECOND PAPER.

Medicines may abolish food.

This, too, may seem to be a useless affirmation, yet is it not a frequent occurrence that patients are injured by the drugs they are taking? Not that the medicine may not be accomplishing the looked-for effects, but that in doing so the system is deranged and the appetite destroyed. Digitalis may stimulate and give force to the heart, but at the cost of the digestion. Deranging the stomach, it may lead to disgust of food. Where the continued use of a drug works great havoc with the digestion then, even though the medicine fulfils the expectations for which it is given, yet it should be at once withdrawn. Let me illustrate by a case seen when I was a student of medicine, but which has never been forgotten:—"A lady of about fifty-five years of age had for years suffered from chronic bronchitis; during the winter she was liable to increase of her troubles, and, at the time of which I speak, she had most of the symptoms of a breaking down of the pulmonary tissues, marked fever, night sweats, cough, and profuse expectoration, rapid wasting, &c. The attending physician prescribed some stimulating cough mixture and quinine in large doses to reduce the fever. The patient's tongue became heavily coated, breath offensive, her appetite left her, and the ominous shake of the doctor's head, roused the fears of the family, and a physician in whom they had great confidence, living in an adjoining town, was sent for."

Taking in the situation, he said, "Theoretically quinine, cough mixture, &c., would be good; practically, at present they are not. What we wish to do is to correct this vitiated digestion, and the appetite once regained you may eat yourself out of bed." The aforementioned drugs being discontinued the patient was placed on minute, frequently repeated (every two hours) doses of calomel, the doctor, no doubt, having reason to endorse Dr. Murcheson's advocacy of mercury when he says: "There are likewise, I believe, grounds for believing that, apart from its increasing the discharge of bile from the bowel, mercury exerts a beneficial action in many functional derangements of the liver, in whatever way this is to be explained. Patients of the greatest intelligence suffering from liver disorders constantly declare that they derive benefit from occasional or repeated doses of mercurials which no other medicine or treatment confers, and the scepticism of the most doubting physician would, I believe, be removed, should he unfortunately find it necessary to test the truth of their statements in his own person." However, the calomel was given, the tongue became moist and cleaner, the appetite returned, good, easily-digested, nourishing food, in small and frequently-repeated amounts was given, and in two weeks the patient was out of bed, and lived two or three years, ultimately to die of consumption.

This case, then, illustrates the point I wish to impress, namely, that medicine may abolish food, and in chronic cases, whatever medicine it be, if such be its effects, even though accomplishing good in certain directions, that nevertheless it should be stopped, as food is of the first importance in long-continued disorders. I do not think this doctrine can be too forcibly impressed, and I was delighted with Dr. Flint's remarks on this subject. He says: "Another fundamental principle is that the immediate lethal agency, when disease destroys life by slow exhaustion, is chiefly want of power of nutrition." Graves acknowledges indebtedness for the suggestion of his plan of "feeding fevers" to a country doctor, who said that he seldom lost patients with fever, provided they were not allowed to die of starvation. Now what is true of fevers as regards the importance of a sustaining diet is equally true of all diseases which kill by slow asthenia. Death is due to starvation, and may be averted if effective assimilation and nutrition be practicable. In all chronic diseases which admit of recovery, this termination is the more assured and expeditious, as a general statement, the better the nutrition is maintained.

The toleration of those diseases which do not admit of recovery and the prolongation of life are promoted in proportion as alimentation can be made conducive to nutrition.

Not unfrequently physicians tell their patients, "You must eat your way out of this trouble," and this may be a truth. The great remedy for chronic troubles is the "eating out." But, on the other hand, if not guided in the quality, quantity, and frequency of their eating, we may be leading them "out of the frying-pan only to put them into the fire."

Food may necesitate medicine.

Medicine may abolish food.

How true these propositions are. Yet, if parents, educated by their physicians, would be judicious in looking after the physical necessities of their children, and of themselves; and physicians would administer medicines only when they were needed, carefully watching for their effects (good and bad), these aphorisms might and would soon disappear from our vocabulary of medical truisms.

Third.—Certain foods, in certain diseases, have medicinal properties.

If we can define medicine as being any substance administered in the treatment of disease we can use them with three objects in view—viz., prevention, controlling of symptoms and eradication of the disease, and, thirdly, the restoration of the structures damaged to their normal condition; in other words, repair of tissues.

Certain foods may be given with one or more of these objects in view. Cod-liver oil may be mentioned as an illustration of the first-named class. Whatever be the cause of pulmonary consumption, we may well absorb the teachings of the eminent writer who says: "There can be little, if any, doubt about the fact that it is the imperfect assimilation of fat which impairs 'interstitial digestion' in the body. This impairment gives us those modifications of nutrition which are summed up in the word 'struma.' We know that if we can manage to enable a patient with pulmonary consumption to digest and assimilate cod-liver oil, tissue nutrition becomes so altered that the development of the disease is usually averted. That is, we have once more given to growing tissue that fat which is essential to healthy formation. Call growth of tubercle by what name each man pleases, Virchow's broad view that this disease-principle is is a growth of connective tissue corpuscles degraded in quality, while produced in great quantity, is the one to hold in order to best grasp the subject from its therapeutic aspect. What we have to attempt to do is to give to the tissues the fat without which they are not healthy."

Sanitary Inspections.—Fee for Survey and Report, in London 2 Guineas. Estimate given and Improvement Works carried out when required.—The Sanitary Engineering Co., 115, Victoria-street, Westminster, S.W.—[Advt.]

Healthy Houses

"A happy home must be a healthy home."—*Anon.*

THE LAW OF LANDLORD AND TENANT,

FROM A SANITARY POINT OF VIEW.

By H. T. Munday, Assoc. Memb. Inst. C.E.

THIRD PAPER.

The cases thus cited are quite sufficient to show that, provided a lessee gets a guarantee, verbal or written (provided the former can be proved), from his landlord, before entry, he is entitled to claim a recission of contract, and damages, should it afterwards turn out that facts do not support the guarantee in any essential particulars, and that, whether given fraudulently or in ignorance, supposing always that such ignorance could have been removed by reasonable inquiry and investigation. It must, however, not be supposed that misstatements, however gross, are any excuse for the non-payment of rent, until the agreement has been legally set aside. This fact one West proved to his cost in the City of London Court before Commissioner Kerr; being sued by his landlord for a quarter's rent he declined to pay on the ground of the defective state of the drains; but the judge remarked that this was no excuse for a non-payment of his rent, and condemned him accordingly.

In the *Times* of Dec. 22, 1880, is reported the case of May *v.* Verity, which presents some points of interest. Defendant had agreed to take a certain assignment of a lease from the plaintiff, and before entry Mrs. Verity had gone over the premises with Mrs. May. The latter, in answer to questions, had stated that as far as she knew the house was healthy; but it was disputed whether she had affirmed positively that the drainage was in good order. Subsequently defendant agreed to take the house, but on examination by a surveyor it was found that the drains were rotten and defective, and permitted the access of foul air to the house; and also, further, that under the building was a drain-pipe which conveyed the drainage from three adjoining houses. Thereupon defendant returned the key, declining to complete the agreement, but offering to pay for any damage done during the examination, and also any costs incurred in drawing the lease. The point upon which the case ultimately turned was a certain clause in the original lease whereby the lessee agreed to allow free passage of *water* from adjoining houses and premises owned by the lessor, but the judge (Vice-Chancellor Hall) ruled that *water* did not mean sewage, and that the terms of the lease were misleading. In consequence, it was decided that the defendant could not be held liable to carry out his agreement; but the Vice-Chancellor also ruled that Mrs. May had not made any fraudulent representation as to the drainage, and that, as the defendant had made charges which were not substantiated, he should not allow him costs.

Coming now to the case of furnished houses, the rule of law (as observed in a previous paper) is entirely different to what obtains in respect of unfurnished houses.

In the second edition of Redman & Lyons' "Law of Landlord and Tenant" it is laid down that the letting of furnished apartments is a mixed contract for realty and for goods and chattels, and in such letting there is an implied agreement or condition that the house is reasonably fit for occupation and comfortable habitation on and from the day on which the tenancy is to commence down to the day on which it is to terminate. This condition is equally broken whether the unfitness arise from defects in the house itself, such as bad drainage, &c., or from the furniture being unfit for use, or from the place becoming uninhabited by reason of dirt or vermin. In any such case the tenant or occupant is entitled to throw up his agreement at the earliest moment the defects are discovered, and to take proceedings for breach of contract.

That this is a proper definition of the law is made clear by the oft-quoted case of Wilson and Another *v.* Finch Hatton. This was an action to recover 450 guineas, being the rent of a furnished house under agreement for about three months. The case was tried before a single judge in 1875, and his decision was subsequently upheld on appeal. The defence was that, owing to the bad state of the drains, the premises were not fit for habitation. Smells were noticed immediately on entering the house, and the defendant declined to take possession. Inquiry proved the existence of an old brick drain made forty years ago, in which was a deposit two inches deep; under the pantry was a cesspool full of filth (it had not been cleared for ten years) and alive with vermin; moreover, there was no trap, and stagnant sewage had got under the basement floor. Although these defects were remedied in about nineteen days, the tenant declined to come in, or pay any rent. The Court held that defendant was perfectly justified in taking this course, as any contract to take a furnished house clearly implies that it is in a habitable condition. In conclusion, the state of the case may be summed up as follows:—

As regards unfurnished houses (in the absence of any proved guarantee, whether written or verbal) the tenant must take things as he finds them, and can claim no redress whatever for any defects subsequently discovered unless he can prove active deceit and fraud.

If, however, a guarantee can be proved to have been given which was not borne out by the facts of the case, a recision of the contract can be demanded and damages claimed.

In the case of a repairing lease, the tenant may carry out any work at his own cost that health requirements demand.

If there is no repairing lease, and the landlord refuses to remedy obvious and dangerous defects, the tenant can bring pressure to bear on him by laying an information before the local sanitary authority, who, if necessary, may do the work themselves and sue the landlord for the costs under Section 41 Public Health Act, 1875.

But in no case can the lessee or tenant refuse to pay the rent until the lease or agreement has been legally set aside.

In the case of furnished houses or apartments, the occupier is justified in leaving them and refusing to pay the rent should they prove uninhabitable from any just and reasonable cause.

The obvious deduction, therefore, from all that has been stated is that no person should enter into possession of any premises, without first obtaining a written guarantee from his landlord that the premises are in a proper habitable and sanitary condition, and, to make assurance doubly sure, such document ought to be countersigned by a sanitary engineer or surveyor of acknowledged position.

Notice.—Pure, dry natural Sherries, free from extraneous spirit, suitable for invalids, are imported, bottled, and delivered, carriage free, by Messrs. Platel & Son, Merchants, Brixham, at 20s. per dozen. These wines were favourably noticed in the number of Health for August 1, 1884, and references can be made to purchasers in all parts of England.

To Stop Hiccough.—A correspondent of the *Medical Record* recommends firm compression of the heaving ribs by both hands. In two cases where this was done the hiccough almost instantly ceased.

Public Health

"Health is the first Wealth."—*Emerson.*

OUR AMBULANCE LECTURES:

What to do in Emergencies and Accidents before the Doctor comes.

By Various Writers.

NO. VIII.—POISONED WOUNDS: BITES AND STINGS.

By Dr. Andrew Wilson.

When a person scratches the finger with a rusty nail or a dirty needle, or some such object, the sequence of events which follow such an injury are well known. After a time, the finger begins to throb, or pulsate; pain is felt, and symptoms of inflammation appear; the arm itself may become painful, and the lymphatic glands of the arm-pit swollen and tender; while suppuration occurs in the finger itself. The history of a suppurating finger is, in short, the history of a "poisoned wound." It is the same when a physician wounds his finger in making a post-mortem examination in a case in which poisonous material is liable to be introduced into the system. When a "mad" dog bites a person, the wound inflicted is a poisoned one; and when a serpent "stings," and injects the poison-secretion of its glands into the wound made by the hollow tooth, or "fang," the same phenomena are witnessed. If differences exist in these cases, as they undoubtedly do, they are only differences of degree, after all. One poisoned wound differs from another largely in the rapidity with which the poison acts on the body, and in the nature of the symptoms it induces.

In the case of certain poisonous principles, which act as the cause of illness in the case of wounds, these deleterious matters are received directly into the blood. Thus the rapidity of the action of serpent-poison can only be explained on the knowledge that the blood is directly affected by the introduction of the poison or virus. On the other hand, it is probable that many poisons—such as those of the dissection wound or of the rusty nail—act more or less directly and more slowly through the *lymphatic* or *absorbent* system of vessels. These vessels are thin-walled tubes, branching everywhere throughout the body, and devoted to the work of taking back to the blood the surplus fluid (or *lymph*) which has exuded from the minute vessels in the act of nourishing the tissues at large. It thus seems that the rapidity or non-rapidity of a poison, as regards its action on the system, largely depends on the manner of its absorption by the blood or by the lymphatic vessels respectively.

The *treatment* of poisoned wounds presents, in the first place, certain well-defined principles, which the ambulance student would do well to bear in mind. Thus, in the first instance, the primary indication for treatment is that which teaches us to *take measures to prevent the spread of poison through the body.* This is accomplished (1) by destroying the poison at the wound or seat of injury by cutting out the part (excision); (2) by the action of caustics, &c. (the actual cautery or red-hot iron, live coal, acids, or caustic, *e.g.*, nitrate of silver, &c.); (3) by tying a ligature tightly between the wound and the body or heart, so as to prevent the diffusion of the poison; and (4) by sucking the wound so as to extract the poison. In relation to this latter remark, it may be borne in mind that poisonous matters which act on the body, through their introduction, directly or indirectly into the blood, as already noted, do not cause injury when swallowed and digested—always provided, of course, that the mucous membrane of the mouth, &c., is intact, and presents no crack or fissure through which the poison could gain admittance to the blood. Hence, a person whose mouth is intact, may with impunity suck the bite of a mad dog, and thus extract the virus from the wound. Such cases have actually occurred, and have been successfully treated in this manner.

When a scratch with a rusty nail or similar object, or a cut with a knife on which poisonous matter has been known to exist, has been inflicted, our first care should therefore be *to suck the wound*, and *to encourage bleeding.* A wound of this description allowed to bleed freely, will often give no further trouble, and heal quickly like an ordinary clean cut. Where the poison is of a character which may be calculated to produce suppuration, the additional precaution of cauterising the wound with caustic (nitrate of silver) may be taken. In simple cases, washing the wound with a solution of carbolic acid, or of Condy's Fluid will suffice to destroy any infective material which may exist; this precaution being taken in addition to the foregoing advice to cause free bleeding and to suck the wound.

The cases of the *stings of wasps and bees* are to be treated by extracting the sting, which can usually be seen in the wound, and by applying ammonia in solution to the injured part. The juice of a raw onion applied to the sting has been highly recommended as a means of relieving pain and reducing swelling. These stings only become really dangerous when they occur in the throat. In such a case they are apt to cause choking from the swelling which ensues. Send for a doctor at once on the occurrence of such an accident, and, until he arrives, keep the patient's throat well steamed with the vapour of hot water. If serious symptoms ensue, we must act as already described in a case of choking.

The case of a *serpent bite* demands the exercise of more vigorous measures. The only poisonous serpent which exists in Great Britain is the adder or viper; and the bite of this serpent is not necessarily fatal, except in the case of weakly persons or children. Many foreign species of snakes inflict bites which, in the majority of cases, are fatal in their effects. The rule in all such accidents is that of destroying the poison at once, by a red-hot iron or live coal placed on the wound—a procedure by no means so painful as commonly supposed. Failing these measures, the part should be cut out or excised. The choice, it must be borne in mind, is one between certain death and a chance of recovery by such treatment. Sportsmen in India, when bitten by snakes, have cauterised the wound by burning it with a fusee or by putting a little gunpowder upon it and by exploding the powder, this process serving to destroy the poison rapidly in the absence of other measures. A tight ligature is to be applied between the wound and the heart; bleeding is to be encouraged; and, in the case of snake-bite from a dangerous serpent, stimulants are to be administered in large quantity. Brandy and whisky is to be given, so as to enable the patient, if possible, to resist the depressing effects of the poison on the system.

Various expedients, it should be mentioned, have been proposed for the chemical treatment of snake-bite, but as the poison of one snake differs from that of another species in its effects on the system, it would seem that the hope of finding any specific cure or actual antidote is very remote.

The *bite of a rabid dog* is to be treated essentially on

Scott's Midlothian Oat-Flour.—There is no preparation which can be assimilated with greater facility than such a flour as this. Those who suffer from indigestion might substitute for their ordinary breakfast materials this flour, prepared according to the recipe given by Messrs. Scott and printed on the tins.—Ed. Health.—[Advt.]

the same principle as the bite of a snake—tying a ligature between the wound and heart, cauterising the wound, or excising it, encouraging bleeding, washing the wounded surface with douches of hot or cold water, and sucking the wound, as already advised.

There are, however, one or two points regarding the case of the "mad dog" bite which deserve special attention on the part of the public. In the first place, it should be borne in mind that "rabies" in the dog is a comparatively rare disease. Many dogs said to be "mad" are not "mad" at all, but are simply either in ill-health, or have been excited to bite by being teased or worried. Secondly, if a dog bites a person, *let the wound be treated as if it were the bite of a rabid animal, but take care to see that the dog is duly secured, tied up, and carefully watched* In a few days the dog's true state may be duly noted, and much pain, terror, and mental worry will be saved the patient by the dog, which was supposed to be "mad," being discovered to have been merely excited. It is needless to remark that the bite of a healthy dog carries with it no special elements of danger. If a dog reputed to be "mad" is destroyed, the person who has been bitten is liable to remain under the impression that he may at any time develope hydrophobia. By carefully watching the animal for some days, and by noting whether or not it developes symptoms of "rabies," the mind will at least be assured on the point; care having been taken to treat the bite in all cases as if it were a dangerous injury.

A "mad" dog exhibits a depraved appetite, swallows all kinds of objects, bites at imaginary things, has a copious flow of saliva, spasms of his jaw-muscles, and shows signs of fear and trembling without cause. On post-mortem examination, the stomach is found to be filled with a variety of matters, the result of the depravity of appetite. But it is well to bear in mind that many dogs reputed "mad" have not been so afflicted in any sense. There is no disorder regarding which the public require to be taught plain facts so urgently as that of hydrophobia. Many a healthy dog, biting naturally from being tormented, has been called "mad," has been killed mercilessly and cruelly, and the patient tormented, in consequence, by the idea of a supposed future attack of hydrophobia.

The director of a German ultramarine manufactory has observed that the workmen never suffer from consumption, and attributes the fact to the process of manufacture, which involves the constant production of sulphurous acid vapour, and has suggested that an atmosphere moderately charged with this vapour would be worth a trial in consumptive institutions.

Teaching the Deaf to Talk.—Mr. N. F. Whipple, principal of the Oral School of Deaf Mutes, at Mystic, Conn., U.S., recently explained in the Plymouth lecture-room, Brooklyn, the system of teaching articulation to the deaf and dumb. He introduced on the platform a boy who had been deaf from his birth, and who repeated the Lord's Prayer loud enough to be heard in the rear of the room. The boy spoke with much distinctness. Long and difficult words suggested by the audience were promptly interpreted by another deaf boy as they fell from Mr. Whipple's lips. Enoch Whipple, over sixty years of age, who was the first deaf mute taught to speak in America, read a chapter from Jeremiah, and related how in early childhood he had learned the power of speech from watching the movements of his father's lips. As a test of the length to which the system has been carried, Mr. Whipple had the lights lowered, and had a deaf boy interpret his utterances by watching the shadows made on the wall by his lips.

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sidney.*

Shop Hours.—The movement for regulating, by the dictates of health and humanity, the working hours of shop-assistants, has always had all our sympathy. A public meeting was this week held at Exeter Hall in support of Sir John Lubbock's Bill, presided over by Lord Brabazon. Mr. T. Sutherst, barrister, the President of the Shop Hours Labour League, read a letter from Lord Shaftesbury, apologising for his absence, and expressing "how truly he approved of the movement, especially as it was in harmony with all the labours and purposes of his early life." There was but a small attendance; but this, it was ingeniously argued, was the best argument for the necessity of the League. When these meetings had been held on a Sunday, they were attended by from 10,000 to 13,000 people; and the fact appears to be that those who were deeply concerned in the success of the movement were unable to get to such a meeting at nine o'clock on a work-day evening. It has been estimated that the average working week of shop-assistants is from seventy-five to ninety hours; and, generally speaking, the proprietors of places of business are forced into such long hours, not for love of them, but simply owing to excessive competition. In these circumstances, it is necessary that legislation should step in and put an arrest on what is held to be a national evil, deteriorating the health of a very numerous and important class of the community. The provision in Sir John Lubbock's Bill, "that a young person shall not be employed in a shop for a longer period than twelve hours in any one day," is only the extension to shop-assistants of a principle which has already received Parliamentary sanction in the Factory and Workshops Act of 1878. In supporting a resolution affirming that young persons whose employment in shops and warehouses is unduly and unnecessarily protracted, to the injury of their health and general welfare, are entitled to the same legal protection as those employed in factories and workshops, and approving of Sir John Lubbock's Bill, Sir John Lubbock, M.P., stated that he had never been able to ascertain any serious objections to the principle of the Bill. Nothing is gained by inordinately long hours; on the contrary, more work might be done in a shorter number of hours. It is not merely a question of overwork, but of positive waste of time.—*British Medical Journal.*

* * *

Small-Pox Risks.—While some members of Parliament are trying to make themselves conspicuous by attempts to disparage vaccination, the plague of small-pox is extending its deadly work in London and some of the provincial towns in a most painful manner. Mr. Hopwood bores the authorities of the Local Government Board with attempts to find out whether a case of small-pox has not somewhere occurred after revaccination—not content with the fact that for fifty years revaccination has been protective enough to save all the employés of the Highgate Small-pox Hospital from an attack, excepting one unfortunate man—a temporary gardener—who refused the boon, and paid for his folly with his life, and the similar experience of all the hospitals in London, not only as to the security of the revaccinated, but the almost unfailing attack of those who neglected or refused to be revaccinated. It is not necessary to pretend that revaccination is an absolute protection; but it is very nearly

so. Small-pox itself does not absolutely protect from small-pox. Unreasonable people every now and again turn up who have a second or even a third attack. Good revaccination in adult life seems a much more complete protection than a previous attack of small-pox. But no sensible person would be surprised at an exceptional case of small-pox after revaccination. The broad and undoubted protection conferred by revaccination remains, and staggers the detractors of a discovery which exceeds all others in its beneficence.—*Lancet.*

✦ ✦ ✦

Requisites for attaining Old Age.—The first requisite for longevity must clearly be an inherent or inborn quality of endurance, of steady persistent nutritive force, which includes reparative force and resistance to disturbing agencies, and a good proportion or balance between the several organs. Each organ must be sound in itself, and its strength must have a due relation to the strength of the other organs. If the heart and the digestive system be disproportionately strong, they will overload and oppress the other organs, one of which will soon give way; and as the strength of the human body, like that of a chain, is to be measured by its weakest link, one disproportionately feeble organ endangers or destroys the whole. The second requisite is freedom from exposure to the various casualties, indiscretions, and other causes of disease to which illness and early death are so much due. Now, in both these —notably, in the second—woman has the advantage over man, and she consequently attains to greater age. In the report of the Registrar-General for 1873, eighty-nine persons were returned as dying at or over the age of 100. Of these, ten only were males; and the superiority of female life is well known by insurance offices to exist, notwithstanding the higher rate of mortality that has been observed during the child-bearing period, and which, there is reason to think, is now slowly disappearing. That this superiority is not entirely due to the comparative freedom from exposures and to the greater temperance in the women, but is partly a result of a stronger or more enduring inherent vitality, is shown by the fact that, even in the first year of life, when the conditions and exposures of male and female infants are the same, the mortality of girls is less than that of boys. A somewhat larger number of boys are born, but they are more difficult to rear; so that the females soon gain the numerical lead, and maintain it, with almost steadily-increasing ratio, to the end. This superiority may be to some extent associated with the less wear and tear in the smaller machinery of the woman's frame as compared with that of man; and one might expect that the small persons in both sexes would live longer than those of greater stature. This, however, scarcely seems to be the case. We find from our returns that the average height of the woman above eighty is about 5 ft. 3 in., which, allowing an inch for the shortening incidental to age, makes it to fall little, if at all, short of the average middle-age stature. The men also we find to be 5 ft. 6 in., which, making a corresponding allowance, gives them a good average height. It may also be observed, which we should not have expected, that the rate both of the pulse and respiration is quicker in the long-lived sex; the average pulse in the women over eighty being 78 to 79, while that in the men is 73; and the respiration in the women is 22, while that in the men is 18 to 19.—*Professor Humphry.*

About half-ounce of stearine added to a quart of made starch, and boiled in it for two or three minutes will be found to add very much to the beauty of linen articles to which it is applied.

Our Bookshelf

"Reading maketh a full man."—*Bacon.*

THE PEDIGREE OF DISEASE.

The Pedigree of Disease: being Six Lectures on Temperament, Idiosyncrasy, and Diathesis, delivered in the Theatre of the Royal College of Surgeons in the Session of 1881. By Jonathan Hutchinson, F.R.S. (London: J. & A. Churchill. 1884.)

The descent of disease—how it comes about that certain maladies, such as gout and rheumatism, run in certain families, descending from parent to child through several generations, escaping, it may be, a generation occasionally, but invariably, at some future time, resuming the thread of their way—this is a subject that, could it be fairly unravelled, would be highly absorbing both to lay and professional reader alike. Unfortunately, however, even in the present advanced state of our medical knowledge, we have not arrived at such efficiency of scientific research as this, and the reader who, slightly misled by the title of Mr. Hutchinson's volume, expects such an exposition will find himself mistaken. It is sufficient for us to know that certain diseases do pass in the manner alleged from generation to generation. Of this we have manifestation on all hands, and it is to the consideration of these manifestations that Mr. Hutchinson would chiefly invite us.

Proceeding, in the first place, to discuss the subject of *temperament*—a term which he would define as applicable to "the sum of the physical peculiarities of an individual, exclusive of all definite tendencies to disease"—our author very truly remarks that, at the present day, there is a very decided tendency among medical men to disregard this feature, and to treat every disease on its own merits; as distinctly apart, that is to say, beyond the ordinary symptoms of the complaint, from the individual in whom it appears, and totally uninfluenced by the separate peculiarities of his individual nature. "Our forefathers," he pertinently remarks, "attached far more importance to such matters as temperament and diathesis (*i.e.* proclivity in an individual to a certain form of disease). They were accustomed to prescribe for a man's temperament; we think only of his disease, and turn aside with weariness from classifications in which the physicians of an older day delighted." Mr. Hutchinson's lectures may in fact be looked upon as an appeal in favour of greater attention being paid to these points, or, in other words, as an argument for their not being entirely lost sight of.

On the subject of temperament, our author points out that our knowledge as yet is very limited. Up to the present time the labours of the student in this direction have been disappointing. "Whoever," Mr. Hutchinson writes, "will set himself the task of attempting to classify a given number of individuals according to their temperaments will, I think, soon find himself baffled. He will discover that he is mistaking for criteria of temperament conditions which are simply indicative of youth or age, of health or disease, or the effects of past anxiety or trouble, or of comparative immunity from them."

Here an apparent discrepancy seems to occur, for the reader will naturally ask himself why, if it be so difficult to judge a man's temperament, the physician of the present day should be censured for not more frequently taking it into account. Surely, he will say, it must be better for him to disregard a quantity of which he knows so little altogether than, by taking it into consideration, to form a false estimate? But it must be remembered that what

Mr. Hutchinson pleads for is that greater attention should be paid to this subject, and, of course, with greater study, the matter of observation would become easier.

Still, we must frankly admit that the difficulties in the way of rightly estimating a man's temperament are very great, and in this Mr. Hutchinson would seem to agree with us. Diathesis, of course, to which we shall allude presently, is a different question. What data, for instance, as Mr. Hutchinson himself points out, has the observer of temperament upon which to found his observations? In a state of perfect health, they are extremely few and unreliable; and, as we have already pointed out, in speaking of a man's temperament, we are too much inclined to judge of the effect which illness, misfortune, or other causes has produced upon him, instead of going back to his original nature, which is the main point after all. In short, when the observer seriously comes to reflect, there is practically nothing upon which he can form an opinion but colour, and by this accordingly he is chiefly influenced. He may note, as Mr. Hutchinson says, the size of a man's bones, his features, the shape of his jaws, the brilliancy of his eye, the coarseness or fineness of his hair, his height, muscular development, and abundance or otherwise of cellular tissue and fat; but it must be remembered that many of these things are simply peculiarities of family or of race, and have little or no connection with health, whilst others are conditions which may vary much at different periods during the same life.

We come, then, to the question of colour or complexion as being the means whereby almost exclusively the question of a man's temperament can be determined, and it will be found that by this condition the majority of observers are guided in their opinion. Of course, we are far from saying that temperament, as generally understood, is not held to include something more than the mere characteristics of complexion, but the other data to which we can refer are, as we have before indicated, exceedingly vague and indefinite. It is by complexion and complexion alone, then, that we chiefly judge. And when we come to complexion, how are we to classify or judge the various temperaments except by reference to their colour—or, as it is scientifically termed, "pigmentation?" "The varying degrees of dark, fair, or red," very cogently writes our author, "constitute almost the sole individual peculiarities of the complexion which are not altered by disease or diet." The question then arises how far these peculiarities are influenced by climate and race. Should we not rather, as Mr. Hutchinson points out, speak of the Celtic, the Scandinavian, the Norman, or English temperaments, instead of the lymphatic, the bilious, the sanguine, the phlegmatic, and so on? The subject, indeed, is an extremely interesting one, and we only regret that we have not the space to enter into it more fully.

Passing next to *idiosyncrasy*, Mr. Hutchinson would define this as "any definite peculiarity of organisation of which the consequences may occur unexpectedly and otherwise inexplicably." The ways in which it exhibits itself are often very extraordinary, and are such as no precautions, unless founded on a previous knowledge of the patient's idiosyncrasy, can obviate. Why, for instance, should quinine, laudanum, or it may be some other drug, which nine hundred and ninety-nine out of every thousand can take with impunity, to the thousandth, who apparently differs in no way from his fellow mortals, prove an absolute poison? Why are there cases which exhibit an unwonted susceptibility to the influence of chloroform—cases which no amount of care in examination will disclose as unsuitable for the administration of this anæsthetic—where the heart, kidneys, and other organs have been duly certified as quite healthy; and yet no sooner has chloroform been administered than the patient, without warning of any kind, either succumbs under its influence, or is with the greatest difficulty brought round? A case of this kind, mentioned by Mr. Hutchinson, is by no means uncommon, and almost every surgeon of extensive practice could corroborate it from his own experience. The patient was a man in Moorfields Eye Hospital, upon whom an operation for the removal of cataract was about to be performed. Despite every precaution, Mr. Hutchinson says, he would certainly have died but for the vigorous use of artificial respiration and the nitrite of amyl. "In discussing the case afterwards I was reminded by our house-surgeon that three years before, when the other eye was operated on, the same man had caused us alarm by precisely similar symptoms. The occurrence had, unfortunately, been forgotten."

Here, then, we have an example of idiosyncrasy in which the form taken was a peculiar susceptibility to the inhalation of chloroform, causing, in all probability, an extreme depression of the heart's action. From amongst other strange forms of idiosyncrasy that Mr. Hutchinson relates we take the following, as being especially singular:—"In one instance the patient was an artist, who declared that frequently he was quite unable, for several hours at a time, to see to paint. His defect seemed to be a temporary suspension of the powers of accommodation. It always affected both eyes, and was always attended by a sense of heat at the stomach and abdominal discomfort. I found that these attacks usually occurred within an hour or two of breakfast, and on entering into detail I became convinced that they were due to eating eggs. On telling my patient my conclusion, he replied at once that he had always suspected it, yet being very fond of eggs, he had indulged in one once in a month or so. He was quite cured by abstinence." Mr. Hutchinson also discusses idiosyncrasies in respect to tea, tobacco, arsenic, the iodides and other drugs, while a large portion of one lecture is devoted to their consideration in reference to specific fevers.

We come, finally, to the subject of *diathesis*. This our author defines as "any bodily condition, however induced, in virtue of which the individual is, through a long period, or usually through the whole life, prone to suffer from some peculiar type of disease." The various forms of diathesis he roughly classifies according to their cause. Thus, we have, in the first place, diathesis in relation to *climate*, and, secondly, those which are connected with *food*, or, as they are more strictly called, *diet diathesis*. Under the former heading, we have malarial fever and the malady which so frequently follows it, the ague, due to the various emanations from marshy grounds, swamps, and jungles; while under the latter distinction come gout, scrofula, leprosy, &c. In his concluding lectures, Mr. Hutchinson considers the subjects of cancer, lupus—a form of skin disease usually affecting the nose and cheeks, and occasionally spreading to the ears and backs of the hands, and which is principally distinguished by the indelible, much-eaten away scar it leaves, from which feature its name is derived—catarrh, rheumatism, and what he calls the *revealing symptoms* of certain diatheses.

We have thus afforded evidence, necessarily in a somewhat fragmentary form, of the highly interesting nature of Mr. Hutchinson's work. Few recent publications in the medical world have engrossed us so thoroughly, or caused us to lay them down with such a feeling of regret. If our readers do not peruse this book for themselves, they will certainly be doing themselves an injustice. The high reputation of the author alone would ensure the value and interest of the work, which is, in its way, a contribution of weight to the literature of a difficult topic.

Sanitary Appliances, Etc.

PRICE'S GLYCERINE.

THE utility of glycerine in the domestic and professional *materia medica* admits of no dispute. Not only is glycerine used of itself as a food and tonic, by no means inferior to cod-liver oil, but it forms a vehicle of the highest possible service for the administration of many other drugs. There is probably in all the range of modern pharmacy no substance which is of higher value than glycerine. It consists of a sweet principle, obtained from fixed oils and fats, and containing about 5 per cent. of water. In the course of digestion, glycerine is produced by the assimilation of fats and oils in the intestine. Naturally, a medium so useful as glycerine, and so greatly in demand, has become a mark for unscrupulous adulteration and for imperfect manufacture. A primary condition for success in all cases in which glycerine is used, is the purity of that substance. Hence, we desire to convey to our readers a caution against the purchase of inferior kinds; and as the best advice which can be given, we recommend them to see that they are supplied with Price's Glycerine, made by Price's Patent Candle Co., which for years has held its own against all comers, as a pure, carefully-prepared, and in all senses excellent make of this commodity. No higher praise can be accorded to any product than to say that it has successfully stood the test of lengthened use and of frequent examination. A sample examined for us is reported as being "absolutely pure, and well fitted for all purposes, medical or scientific." We, therefore, cordially endorse the opinions which place Price's Glycerine *facile princeps* among such products, and advise those who require to depend on the quality of the glycerine used for any purpose to purchase Price's make. Many unsatisfactory results obtained in using glycerine—such as excessive skin irritation—are really due to the use of impure manufactures, a contingency easily avoided by the use of a pure product such as that we have described.

MARIANI'S TONIC COCA WINE.

(VIN TONIQUE MARIANI.)

WE have recently subjected to examination a sample of the famous Tonic Coca Wine of Mariani & Co., of Paris and New York, a preparation which has of late years been surely winning its way into the favour of medical men on this side of the Channel, as it has long been used with success by the most eminent continental physicians. As the name indicates, this wine (which is of low alcoholic strength, namely, that of an ordinary Burgundy) contains, as its chief constituent, the principle of the Coca plant of South America—the *Erythroxylon Coca* of botanists. Coca has attained a high celebrity, not only as a stimulant and restorative, but as a nutritive substance in addition. It has long been celebrated among the Indian tribes as a stimulant, which, in addition to endowing them with the power of enduring exertion without fatigue, possesses actual food-properties in addition. Experiments show that the administration of coca prevents waste or destructive tissue-change. It would, therefore, appear to act in a natural fashion by husbanding the resources of the body. It has been prescribed as a remedy for drink-craving, for the cure of the opium-habit, and for morphia-drinking; while in convalescence from fevers and in mental exhaustion, the restorative properties of coca have been proved to be of extreme value.

In the form before us, Mariani's Tonic Coca Wine, the excellencies of the coca plant are combined to form an elegant preparation. This wine is of most agreeable taste, and can be readily taken by children, as well as by adults. The dose being, for adults, a claret-glass full before or after meals; and for children, half this quantity. One special feature of this wine is its non-liability to derange the digestive organs, and this quality is the more valuable in the case of a tonic remedy, inasmuch as the chief cause of complaint against many preparations of this class, is their tendency to produce effects on the general health of deleterious character. In Mariani's Coca Wine, the safe and agreeable qualities of a tonic stimulant and nutritive preparation are combined, and we are certain that in all cases in which the use of such a preparation is indicated, the effects of this wine will be found fully to justify its use and the confidence with which it is prescribed. In all cases of fatigue, mental depression, lassitude from over-exercise of mental or physical kind, in convalescence from ailments, and in those difficult cases of "general debility" so called, in which ordinary drugs are so apt to cause digestive disturbance, the use of this wine can be fully recommended.

The English agents for the sale of this wine, it may be added, are Messrs. Roberts & Co., of 76, New Bond-street, London, W.

Our Letter : Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including specimens of Sanitary Appliances, &c.), to be addressed to "THE EDITOR OF HEALTH," 74-76, Great Queen-street, London, W.C. Those intended for the Publishing Office to be sent to "THE PUBLISHER," at the same address.

Contributors are requested to send stamps for the return of the MSS. in event of non-acceptance. Every care will be taken to ensure the safety of MSS., but the EDITOR and PUBLISHERS cannot hold themselves responsible for accidental loss.

Correspondents are requested to write on one side of the paper only. The EDITOR disclaims responsibility for the opinions expressed by Correspondents.

LETTERS TO THE EDITOR.

CARPET-BEATING.

SIR,—I quite agree with your correspondent, Dr. Park, who in last week's HEALTH gives his opinion, as a Medical Officer of Health, that carpet-beating, as ordinarily practised, is a social nuisance and a health-danger. Add to the dangers of the accumulated dust of months, the risk of infection from the dried particles of fever matter lodged in the carpets, and the disturbance of rest produced by the "whack," "whack" of the sticks, and I think we have a good case made out for the repression of the practice by law. No doubt, there would be heard the usual chorus of discontent, were carpet-beating to be delared illegal; but if it is to be allowed at all, why not compel the practice to be carried on out of towns, and in open places, where the risks of infection would be greatly lessened? Householders who value their carpets and their health alike, should have them cleaned, not beaten.—I am, sir, yours, &c. SANITAS.

REMOVAL OF HOUSE REFUSE.

SIR,—I observe that Mr. Lee Bliss asks, in HEALTH of May 1, if any of your readers can give him information respecting the removal in *covered* waggons of house refuse. In this city, we have no system for the removal of soil, our closet-system (water-carriage) not requiring such means of disposal. But we have our ashes, &c., removed by carts, into which are emptied daily the refuse placed in buckets in the streets, at the house-doors. These carts, until very recently, were absolutely uncovered. Many of them are so still; but, I believe, covered carts are being introduced. High time too, say I; for we citizens of modern Athens are liable to be blinded on windy days by the showers of filthy dust which are swept from the carts into the streets. The plague of dirty paper, liberated from the ash-buckets, and blown about by the wind, is quite as disgusting. If, for dry refuse, such as ashes, covered carts should be employed, I should think the case of Norwich is infinitely more pressing. Surely, it is contrary to all sanitary principles to allow the air to become contaminated by soil so conveyed. In a higher era of health-science Norwich will not only use covered waggons, but will have these vehicles furnished with disinfecting appliances ready to disinfect the soil as it is placed in the waggons.—I am, sir, yours, &c., A CITIZEN.

Edinburgh.

QUERIES AND ANSWERS.

[Queries sent on post-cards are not attended to.]

[We find it necessary to repeat the statement, frequently made in these pages, that, under no circumstances, can a reply be given in these columns in the same week as that in which a query is received. All despatch is used in replying to our correspondents, but our publishing arrangements do not admit of answers being given earlier than the succeeding week. The editor cannot undertake to reply to correspondents *by letter*, except in special cases, the determination of which is subject to editorial selection.]

GENERAL.

TACITUS.—The reference was duly given in HEALTH No. 101.

T. S. A.—Tanner's "Practice of Medicine," or Roberts' "Manual" will suit you.

G. ALSTON.—In the diet-scale you send you have reversed the food-classes, and your percentages are too high. See Pavy on "Foods."

SCOTT'S EMULSION of PURE COD LIVER OIL

AND HYPOPHOSPHITES OF LIME AND SODA

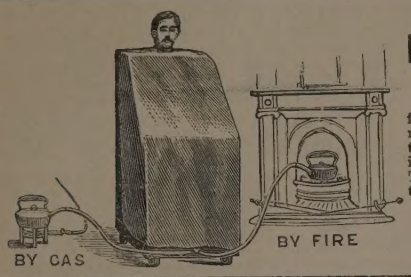
IS AS PALATABLE AS MILK.

Having all the virtues of the crude Cod-Liver Oil, in addition to the excellent tonic and strengthening properties of the Hypophosphites, it is

THE BEST REMEDY IN EXISTENCE FOR THE CURE OF

Consumption, Scrofulous affections, General Debility, Wasting Diseases, Coughs, Colds, and Bronchitis, and is unequalled for Children suffering from Marasmus and inability to digest ordinary food.

Any Chemist can supply it at 2s. 6d. and 4s. 6d.



OXLEY'S IMPROVED PORTABLE RUSSIAN VAPOUR STEAM BATH

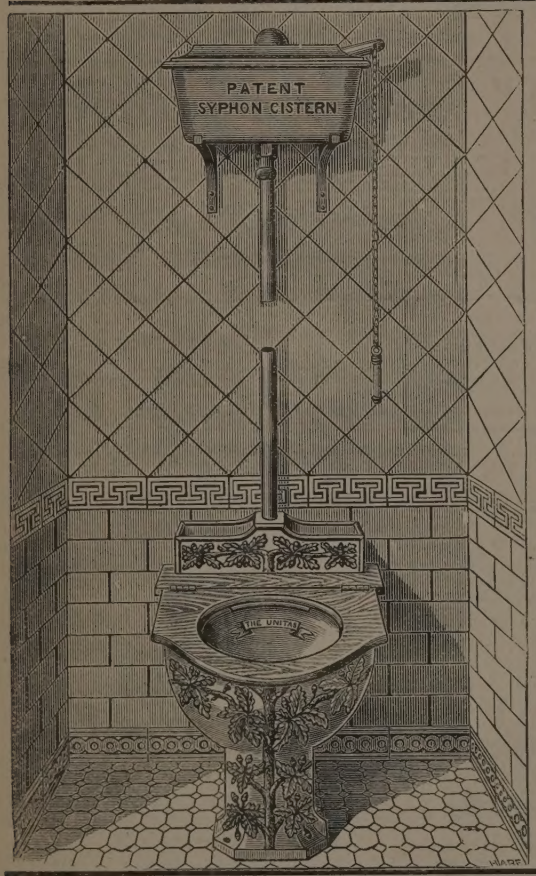
FOR HOME AND FAMILY USE.

THIS BATH is offered to supply a long-felt desideratum—viz., an effective STEAM-VAPOUR BATH for Home use. It combines simplicity with effectiveness, and can be used in any Home, with a minimum of trouble. It is mounted on Castors, and runs so easily that a child can move it from room to room. The superiority of Steam Vapour over Hot Air for Baths is incontestable, as it is quicker in its action, more searching to the skin, and does not produce the unpleasant lassitude of the Turkish Bath. The head being exposed enables the Bather to breathe the atmosphere at the usual temperature.

PRICE, all complete with Gas Bunsen, Blanket and Sheet, £5. 5s.; without Bunsen Burner, £4. 15s.

W. OXLEY & CO.,

ST. MARY'S PARSONAGE, MANCHESTER.



THE PERFECTION OF CLEANLINESS, UTILITY, and SIMPLICITY.

"THE UNITAS,"

Combining W.C., BASIN & TRAP, URINAL, & SLOP SINK, has the following special advantages:

UNLIKE ordinary W.C. Basins, it is not enclosed with woodwork, but is fully exposed, so that no filth, nor anything causing offensive smells can accumulate, or escape detection.

ALL joints and connections being in sight, any leakage or other defect can be easily detected and remedied.

No Wood Fittings are required except a hinged seat, which, being raised, the Basin can be used as a Urinal or a Slop Sink, the "wetting" so objectionable in Closets having permanent seats being avoided. Free access can thus be had to all parts of the Basin and Trap, so that everything about the Closet can be easily kept clean.

THE outside of Basin and Trap having Raised Ornamentation, plain or coloured, the appearance presented is pleasing and artistic.

THE Basin and Trap are constructed similar to the "Alliance," which was exhibited with the greatest success at the International Health Exhibition, South Kensington, 1884.

THE flushing arrangements are so perfect, that, with a flush of two gallons of water, it is guaranteed that all the soil and paper will be completely removed from the Basin, and through Trap, the whole of the inside of Basin being washed, and sufficient water left therein to receive soil.

THOMAS TWYFORD,

Sanitary Potter, Bath Street Works, Hanley, Staff.,

Sole Maker of "National," "Alliance," "Unitas" and "Crown" Closet Basins.

ALSO EVERY DESCRIPTION OF

PLUMBERS' AND SANITARY EARTHENWARE.

BONIFACIUS WATER, Pure from the Spring, as supplied to PRINCE BISMARK.

1/6 and 1/- per bottle.

Medical Press:—"Extremely beneficial in Gout and Rheumatic Affections, and gives relief in cases of Gravel, Stone, Kidney Diseases, Abdominal and Congestive Affections, Obesity, Hæmorrhoids, &c."

HESSIAN BITTER WATER, THE QUEEN of Aperient Waters. Highly Effervescing, Pleasant, and Refreshing.

1s. 1½d. per bottle.

TO BE HAD OF ALL CHEMISTS, OR OF THE IMPORTERS,

BONIFACIUS COMPANY, 13, RAILWAY APPROACH, LONDON BRIDGE, LONDON, S.E.

Brown & Co., 37, Farringdon-road, London, E.C. An injection of warm water alone should be used before the Quebascho is injected.

Thomas Walker.—We advise you to be content with ordinary judicious exercise, such as walking, cycling, rowing, &c. You are too old to train—and you cannot "train" and attend to business as well. The book on "Training, in Theory and Practice," by Mr. Maclaren (Macmillan & Co.), would afford you information.

F. M. H.—(1) We have no further information on the subject. In our own opinion the matter is an absurdity, and we published the extract to show the depths of inanity to which people will descend. There can be no such thing as alteration without producing injury to the structures of the part. Don't meddle with any such appliances such as are advertised in the daily newspapers. (2) Spray or gargle the throat twice or thrice daily with a lotion made by adding one tablespoonful of Quebascho (see reply to "Violet" above) to a pint of tepid water, and take *Fer Bravais* internally, as ordered to "Erin" in the present number of Health. (3) For the feet, see advice regarding washing and powder, given to "Isabella" above.

C. S.—Keep your hair short; wash with Hamamelis Soap or Iodoform Soap and tepid water, thrice weekly; thereafter rub in Rowlands' Macassar Oil to the roots. Use a soft brush. Give up washing the head with cold water each morning.

F. H. P.—See and follow advice given to "Column," in Health No. 109. The advice there detailed applies exactly to your case, in regard both to constipation and to your other symptoms. The tonic named in the directions to "Column" would be that most suitable for your case. There is no need for you to be alarmed in any sense. Probably mental work (or worry) explains the greater frequency at certain times. Claret with your dinner will do you no harm. Glad to be of any further service to you.

Frank.—Try the effect of wearing a suspensory bandage, and of sponging with cold water each morning, using brisk friction thereafter. The tonic recommended to "Bitters," in the present number of Health, will also do you good. The frequency you name is by no means excessive. Probably the measures thus indicated to you—and especially the tonic—will relieve you. If not, write again.

A Reader of Health.—(Will please use a more distinctive name for future communications.) A depilatory is made as follows:—Sulphide of sodium three drachms; lime, ten drachms; starch, ten drachms. Make a paste with water; apply to the skin for two minutes only; then scrape off. To be used with care. No depilatory will prevent the hairs from growing again.

Trade Mark— "HEALTH BELT." —Trade Mark.

BY ROYAL LETTERS PATENT.

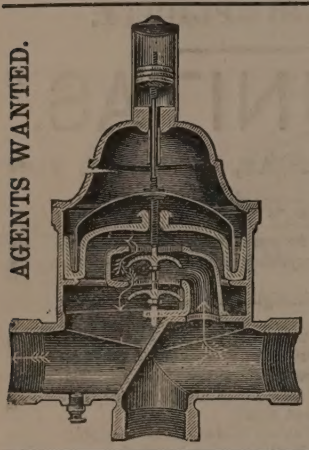
Harness' Electric Battery Belt.

The simplest, safest, most comfortable, most economical and most reliable adaption of Electricity for curative purposes ever invented—*vide* reports. Invaluable in all cases of Impaired Vitality, Nervous Debility, and the many distressing ailments consequent on defective circulation or sluggish organic action.

Requires no wetting with vinegar or other extraneous acid, and does not injure the most delicate skin. Need only be worn half-an-hour per day. Send for testimonials, or consult Mr. Harness personally (free of charge) at the rooms of

THE MEDICAL BATTERY CO., 205, Regent Street, London, W.

AGENTS WANTED.



THE "STOTT" GAS ECONOMISER.

As Adopted by Her Majesty's Government,

IMMENSE SAVING OF GAS.

From MADAME PAULINE NEWSOME.

Glasgow Circus, Ingram Street.		*Edinburgh Circus, Nicholson Street.*	
Without Governor, the Gas consumed from 1st December to 9th February, 1884, was 564,500 feet at 3s. 6d. per Thousand	£98 15 9	Without Governor, the Gas consumed from 1st December to 9th February, 1884, was 479,800 feet, at 3s. 8d. per Thousand	£87 19 4
With the "Stott" Governor, the Gas consumed from 29th November to 7th February, 1885, was 341,100 feet at 3s. 6d. per Thousand	59 13 10	With the "Stott" Governor, the Gas consumed from 29th November to 7th February, 1885, was 376,000 feet at 3s. 8d. per Thousand	68 18 8
SAVING OF	£39 1 11	SAVING OF	£19 0 8

Thus it will be seen that between the Two Circuses a saving of £58 2 7 has been effected.
The Cost of the "Stott" Governors and fittings amounted to 45 9 0

Leaving a Balance over the cost of £12 13 7 in Ten Weeks.

Gold Medal awarded Crystal Palace, 1884. Price-Lists and Testimonials on Application.

JAMES STOTT & CO., 174, FLEET STREET, LONDON, E.C.,

And 8, Hopwood Avenue, Manchester. Manufactory: Vernon Works, Lee Street, Oldham.

OUR EYES.

Just Published, Third Edition. HOW to USE OUR EYES, and HOW to PRESERVE THEM, from INFANCY to OLD AGE, with Special Information about Spectacles. By JOHN BROWNING, F.R.A.S., F.R.M.S., &c. With 54 Illustrations, Price 1s.; cloth, 1s. 6d.

Extracts from Notices of the First Edition:—"'How to Use Our Eyes,' by John Browning, F.R.A.S., is a thoroughly practical little manual."—*Graphic.*

"Gives many a useful hint to those who enjoy good eyesight and wish to preserve it, and gives the advice of an oculist to those obliged to wear Spectacles."—*Pall Mall Gazette.*

Chatto & Windus, Piccadilly, London, W., and all Booksellers. Sent free for 1s. 2d. by the Author.

JOHN BROWNING, 63, STRAND. LONDON, W.C.

In stiff paper boards, price 1s.

KOTAKA:

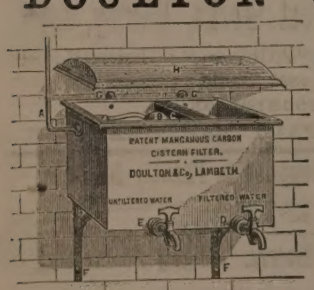
A SAMURAI'S DAUGHTER.

A Story of Modern Japan. By J. MORRIS.

Profusely Illustrated by Stanley Wood.

London: WYMAN & SONS, 75, Gt. Queen-st., W.C.

DOULTON & CO., LAMBETH, LONDON, S.E.



DOULTON'S MANGANOUS CARBON

HOUSE SUPPLY OR CISTERN FILTER.

Can be attached to Main Service Pipe or Cistern.

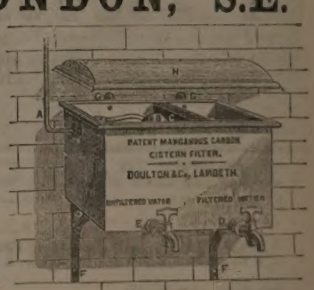
EVERY FACILITY FOR CLEANING.

Can be fixed by any Plumber.

INSTRUCTIONS FOR USE SENT WITH FILTER.

PRIZE MEDAL, International Health Exhibition, 1884.

DOULTON & CO. also manufacture Boudoir or Table Filters, Pocket and Syphon Filters for Tourists' use, Household Filters, Refrigerator Filters, Main Service Filters for Manufacturing Purposes, Hotels, &c.—May be had of all Dealers.



DOULTON & CO., LAMBETH, LONDON, S.E.

DEPOTS - 100, SOHO ST., LIVERPOOL; GRANVILLE ST., BIRMINGHAM; AND 6, RUE DE PARADIS, PARIS.